

## SEQUENCE LISTING

<110> Luche, Ralf M.  
Wei, Bo

<120> DSP-16 DUAL-SPECIFICITY PHOSPHATASE

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<140> US

<141> 2001-09-25

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Pro Phe Val Glu Tyr Asn Thr Ser His Ile Leu Glu Ala Ile Asn Ile
 35          40          45
Asn Cys Ser Lys Leu Met Lys Arg Arg Leu Gln Gln Asp Lys Val Leu
 50          55          60
Ile Thr Glu Leu Ile Gln His Ser Ala Lys His Lys Val Asp Ile Asp
 65          70          75          80
Cys Ser Gln Lys Val Val Val Tyr Asp Gln Ser Ser Gln Asp Val Ala
 85          90          95
Ser Leu Ser Ser Asp Cys Phe Leu Thr Val Leu Leu Gly Lys Leu Glu
100          105          110
Lys Ser Phe Asn Ser Val His Leu Leu Ala Gly Gly Phe Ala Glu Phe
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 Asn Thr Cys Pro Lys Pro Asp Phe Ile Pro Glu Ser His Phe Leu Arg  
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 Val Pro Val Asn Asp Ser Phe Cys Glu Lys Ile Leu Pro Trp Leu Asp  
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 Lys Ser Val Asp Phe Ile Glu Lys Ala Lys Ala Ser Asn Gly Cys Val  
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 Ala Tyr Ile Met Lys Arg Met Asp Met Ser Leu Asp Glu Ala Tyr Arg  
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 Phe Val Lys Glu Lys Arg Pro Thr Ile Ser Pro Asn Phe Asn Phe Leu  
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 Gly Gln Leu Leu Asp Tyr Glu Lys Lys Ile Lys Asn Gln Thr Gly Ala  
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 Ser Lys Arg Leu His Ser Val Arg Thr Ser Ser Ser Gly Thr Ala Gln  
 485 490 495  
 Arg Ser Leu Leu Ser Pro Leu His Arg Ser Gly Ser Val Glu Asp Asn  
 500 505 510  
 Tyr His Thr Ser Phe Leu Phe Gly Leu Ser Thr Ser Gln Gln His Leu  
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 Thr Lys Ser Ala Gly Leu Gly Leu Lys Gly Trp His Ser Asp Ile Leu  
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 Thr Glu Ser Ser His Phe Tyr Ser Ala Ser Ala Ile Tyr Gly Gly Ser  
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 Val Leu Glu Glu Phe Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn  
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 Ala Ile Ser Phe Ile Asp Glu Ala Arg Gly Lys Asn Cys Gly Val Leu  
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 Val His Cys Leu Ala Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala  
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 Tyr Leu Met Gln Lys Leu Asn Leu Ser Met Asn Asp Ala Tyr Asp Ile  
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 Val Lys Met Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly  
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 Val Leu Gly Lys Tyr Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn  
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 Val His Cys Leu Ala Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala  
 100 105 110  
 Tyr Leu Met Gln Lys Met Asn Leu Ser Leu Asn Asp Ala Tyr Asp Phe  
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 Ala Ile Glu Phe Ile Asp Glu Ala Leu Ser Gln Asn Cys Gly Val Leu  
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 Val His Cys Leu Ala Gly Val Ser Arg Ser Val Thr Val Thr Val Ala  
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 Tyr Leu Met Gln Lys Leu His Leu Ser Leu Asn Asp Ala Tyr Asp Leu  
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 Cys Pro Asn His Phe Glu Gly Leu Phe His Tyr Lys Ser Ile Pro Val  
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 Glu Asp Asn Gln Met Val Glu Ile Ser Ala Trp Phe Gln Glu Ala Ile  
 65                                  70                                  75                                  80  
 Ser Phe Ile Asp Ser Val Lys Asn Ser Gly Gly Arg Val Leu Val His  
                                   85                                  90                                  95  
 Cys Gln Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu  
                                   100                                  105                                  110  
 Ile Gln Ser His Arg Val Arg Leu Asp Glu Ala Phe Asp Phe Val Lys  
                                   115                                  120                                  125  
 Gln Arg Arg Gly Val Ile Ser Pro Asn Phe Ser Phe Met Gly Gln Leu  
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 Cys Pro Asn His Phe Glu Gly His Tyr Gln Tyr Lys Ser Ile Pro Val  
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 Glu Asp Asn His Lys Ala Asp Ile Ser Ser Trp Phe Asn Glu Ala Ile  
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 Asp Phe Ile Asp Ser Ile Lys Asn Ala Gly Gly Arg Val Phe Val His  
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 Cys Gln Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu  
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 Met Arg Thr Asn Arg Val Lys Leu Asp Glu Ala Phe Glu Phe Val Lys  
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 Gln Arg Arg Ser Ile Ile Ser Pro Asn Phe Ser Phe Met Gly Gln Leu  
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 Cys Pro Asn His Phe Glu Gly His Tyr Gln Tyr Lys Cys Ile Pro Val  
 50 55 60  
 Glu Asp Asn His Lys Ala Asp Ile Ser Ser Trp Phe Met Glu Ala Ile  
 65 70 75 80  
 Glu Tyr Ile Asp Ala Val Lys Asp Cys Arg Gly Arg Val Leu Val His  
 85 90 95  
 Cys Gln Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu  
 100 105 110  
 Met Met Lys Lys Arg Val Arg Leu Glu Glu Ala Phe Glu Phe Val Lys  
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 50 55 60  
 Glu Asp Ser His Thr Ala Asp Ile Ser Ser His Phe Gln Glu Ala Ile  
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 Asp Phe Ile Asp Cys Val Arg Glu Lys Gly Gly Lys Val Leu Val His  
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          35          40          45
Arg Ser Phe Met His Val Asn Thr Asn Ala Asn Phe Tyr Lys Asp Ser
 50           55           60
Gly Ile Thr Tyr Leu Gly Ile Lys Ala Asn Asp Thr Gln Glu Phe Asn
65           70           75           80
Leu Ser Ala Tyr Phe Glu Arg Ala Ala Asp Phe Ile Asp Gln Ala Leu
          85          90          95
Ala Gln Lys Asn Gly Arg Val Leu Val His Cys Arg Glu Gly Tyr Ser
          100         105         110
Arg Ser Pro Thr Leu Val Ile Ala Tyr Leu Met Met Arg Gln Lys Met
          115         120         125
Asp Val Lys Ser Ala Leu Ser Tyr Val Arg Gln Asn Arg Glu Ile Gly
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Pro Asn Asp Gly Phe Leu Ala Gln Leu Cys Gln Leu Asn Asp Arg Leu
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Ala Lys Glu

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<210> 13

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<213> Homo sapiens

<400> 13

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Asp Met Ser Leu Asp Glu Ala Tyr Arg
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<223> PCR primer

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<210> 16

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<212> PRT

<213> Homo sapiens

<400> 16

Val His Cys Leu Ala Gly Ile Ser Arg Ser  
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<210> 17

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<212> PRT

<213> Artificial Sequence

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<223> Conserved homology sequence of eight human DSP  
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Thr Asn Ile Leu Ala Tyr Leu Met  
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<210> 18

<211> 32

<212> DNA

<213> Artificial Sequence

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<223> RACE primer

<400> 18

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<211> 35

<212> DNA

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<223> RACE primer

<400> 19

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<212> PRT
<213> Homo sapiens
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Cys	Ala	Asp	Ser	Ala	Thr	Ser	Glu	Ala	Ala	Gly	Gln	Arg	Pro	Val	His
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Arg	Leu	Glu	Asp	Ser	Asn	Lys	Leu	Lys	Arg	Ser	Phe	Ser	Leu	Asp	Ile
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		275					280					285			
Asp	Gly	Thr	Asn	Lys	Leu	Cys	Gln	Phe	Ser	Pro	Val	Gln	Glu	Leu	Ser

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 Lys Lys Leu Gln Thr Ala Arg Pro Ser Asp Ser Gln Ser Lys Arg Leu  
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 His Ser Val Arg Thr Ser Ser Ser Gly Thr Ala Gln Arg Ser Leu Leu  
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 Ser Pro Leu His Arg Ser Gly Ser Val Glu Asp Asn Tyr His Thr Ser  
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 Phe Leu Phe Gly Leu Ser Thr Ser Gln Gln His Leu Thr Lys Ser Ala  
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 Gly Leu Gly Leu Lys Gly Trp His Ser Asp Ile Leu Ala Pro Gln Thr  
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 Ser Thr Pro Ser Leu Thr Ser Ser Trp Tyr Phe Ala Thr Glu Ser Ser  
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 His Phe Tyr Ser Ala Ser Ala Ile Tyr Gly Gly Ser Ala Ser Tyr Ser  
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 Ala Tyr Ser Cys Ser Gln Leu Pro Thr Cys Gly Asp Gln Val Tyr Ser  
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 Val Arg Arg Arg Gln Lys Pro Ser Asp Arg Ala Asp Ser Arg Arg Ser  
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 Trp His Glu Glu Ser Pro Phe Glu Lys Gln Phe Lys Arg Arg Ser Cys  
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 Gln Met Glu Phe Gly Glu Ser Ile Met Ser Glu Asn Arg Ser Arg Glu  
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<212> PRT

<213> Artificial Sequence

<220>

<223> Autophosphorylation site from EGF receptor.

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Asp Ala Asp Glu Tyr Leu

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5